9/4/09

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APPL. NO.: 10/540,401

RE: TELEPHONE INTERVIEW W/ SUPERVISOR

ENCL.: 5 PAGE INTERVIEW AGENDA & PROPOSED CLAIM AMENDMENTS

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Interview Agenda for Application Number 10/540,401

1. Applicants propose cancelling claims 19-27 in favor of new claims 28-36. Support for the subject matter of the new claims is provided in original claims 1-9 and paragraphs [0060]-[0062], [0064], and [0082]-[0084] of the specification.

2. Claims 19-27 were rejected, under 35 USC §103(a), as being unpatentable over Frodigh et al. (US 5,726,978) in view of Terry (US 2004/0009786).

3. Claim 28 recites subject matter of claim 19 and defines a radio communication apparatus that: (1) selects a plurality of received OFDM subcarriers of higher reception quality, (2) generates one channel quality indicator (CQI) reflecting the reception quality of all the selected subcarriers, and (3) reports the generated CQI and information indicating the selected subcarriers to a communicating party. The claimed subject matter supports reducing the number of bits to transmit when reporting information about the reception quality of a plurality of subcarriers (see specification page 7, lines 2-6 and 20-23).

4. The Final Rejection proposes that Frodigh's disclosure of averaging carrier-to-interference (C/I) measurements corresponds to the subject matter recited in claim 19, and now recited in claim 28, of generating one CQI reflecting the reception quality of all selected subcarriers.

5. However, the claimed CQI reflects a reception quality over the frequency domain, whereas Frodigh discloses averaging C/I measurements in the time domain.

6. Assuming, for the sake of discussion simplicity, that Applicants' CQI was an average value, this average value would reflect the sum of the qualities for all subcarriers considered

divided by the number of subcarriers. Thus, such average would represent an average value across a frequency spectrum of individual subcarriers.

7. Frodigh discloses that a "link receiver measures C/I on each of the subset of M carriers" (see Frodigh col. 11, lines 4-5, and col. 14, lines 13-14, emphasis added) "and averages the results for each subcarrier" (see col. 14, lines 14-15, emphasis added). And the Final Rejection acknowledges that Frodigh discloses averaging multiple C/I measurements over time for a single carrier and doing such for each of a plurality of subcarriers by stating "Frodigh discloses C/I measurements on the [sic] each of the set of M subcarriers and averaging the results" (see Final Rejection page 2, lines 2-3 of third paragraph).

8. Thus, Frodigh discloses averaging, over a period of time, the C/I measurements of a single subcarrier taken at different points in time to produce an average C/I value for this subcarrier over the time period of the measurements.

9. Although Frodigh discloses that another subcarrier has C/I measurements taken over a period of time and the C/I measurements of this other subcarrier are averaged, the fact that a separate average is generated for each of two subcarriers should not be mistaken as averaging the value of a single C/I measurement taken of a first subcarrier with the value of a single C/I measurement taken of a second subcarrier. And this reasoning holds without regard to whether the M subcarriers disclosed by Frodigh is limited to two subcarrier (i.e., M=2) or is greater than two subcarriers (i.e., M > 2).

Frodigh's calculated average is a time-domain average, whereas the claimed subject matter of generating one CQI reflecting the reception quality of all selected subcarriers is a characterization of the frequency-domain.